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Secchi has, however, given in the "Prodromo," not only the correct, but also the incorrect position, and thus out of *one* red star has made *two*. The object Secchi No. 403=Birmingham No. 586=Chambers No. 648 should therefore be struck out.

Vienna: 1889, *Jan.* 14.

Ephemeris for Physical Observations of the Moon. By A. Marth.

1889, *April* 1 *to June* 30.

Greenwich Noon.	Selenographical Colong. of the Sun.	Selenographical Lat. of the Sun.	Geocentric Libration. Long. of the Earth.	Geocentric Libration. Lat. of the Earth.	Amount.	Direction.
April 1	277°·98	−1°·52	+3°·98	+6°·49	7°·61	328°·6
2	290·20	1·52	3·31	6·17	7·00	331·9
3	302·42	1·52	2·40	5·57	6·06	336·8
4	314·64	1·52	+1·28	4·72	4·89	344·9
5	326·85	1·53	0·00	3·68	3·68	0·1
6	339·05	1·53	−1·39	2·48	2·84	29·1
7	351·25	−1·53	−2·79	+1·18	3·02	67·0
8	3·45	1·54	4·11	−0·18	4·12	92·5
9	15·64	1·54	5·26	1·56	5·49	106·5
10	27·83	1·54	6·16	2·89	6·80	115·2
11	40·01	1·54	6·70	4·11	7·86	121·7
12	52·18	1·54	6·81	5·17	8·54	127·3
13	64·35	1·54	6·47	5·97	8·79	132·8
14	76·52	−1·53	−5·68	−6·44	8·58	138·8
15	88·69	1·53	4·49	6·53	7·92	145·6
16	100·85	1·52	3·02	6·21	6·90	154·1
17	113·02	1·52	−1·40	5·46	5·64	165·7
18	125·19	1·51	+0·23	4·35	4·35	183·1
19	137·37	1·50	1·74	2·95	3·43	210·5
20	149·55	1·49	3·04	−1·38	3·34	241·6
21	161·74	−1·48	+4·09	+0·26	4·09	273·6
22	173·94	1·47	4·85	1·85	5·18	290·9
23	186·14	1·46	5·35	3·30	6·28	301·7
24	198·35	1·45	5·61	4·54	7·21	309·1
25	210·57	1·43	5·65	5·51	7·89	314·4
26	222·79	1·42	5·50	6·18	8·26	318·5
27	235·02	1·41	5·14	6·53	8·30	321·9
28	247·25	−1·40	+4·62	+6·55	8·01	325·0
29	259·49	1·39	3·90	6·26	7·37	328·2
30	271·73	1·38	2·99	5·68	6·42	332·3

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Greenwich Noon.		Selenographical		Geocentric Libration.			
		Colong. of the Sun.	Lat.	Long. of the Earth.	Lat.	Amount.	Direction.
May	1	283°·96	1°·37	1°·90	4°·85	5°·21	338°·6
	2	296·19	1·36	+0·67	3·82	3·88	350·0
	3	308·42	1·35	−0·68	2·62	2·71	14·5
	4	320·65	1·34	2·10	+1·32	2·48	57·8
	5	332·88	−1·33	−3·52	−0·04	3·54	96·7
	6	345·10	1·32	4·85	1·41	5·06	106·3
	7	357·31	1·31	6·02	2·74	6·62	114·5
	8	9·52	1·30	6·93	3·97	7·99	119·9
	9	21·73	1·29	7·50	5·05	9·03	124·1
	10	33·93	1·27	7·63	5·90	9·63	127·9
	11	46·12	1·26	7·28	6·45	9·72	131·8
	12	58·31	−1·24	−6·46	−6·66	9·27	136·0
	13	70·49	1·22	5·18	6·45	8·26	141·4
	14	82·67	1·20	3·54	5·81	6·80	148·8
	15	94·85	1·18	−1·67	4·76	5·05	160·8
	16	107·03	1·16	+0·26	3·38	3·39	184·5
	17	119·21	1·14	2·10	1·76	2·74	230·0
	18	131·40	1·12	3·72	−0·05	3·72	269·3
	19	143·59	−1·10	+5·04	+1·64	5·30	288·1
	20	155·79	1·08	5·99	3·19	6·78	298·1
	21	168·00	1·05	6·59	4·51	7·98	304·5
	22	180·22	1·03	6·85	5·54	8·80	309·1
	23	192·44	1·01	6·79	6·25	9·22	312·8
	24	204·67	0·99	6·46	6·64	9·25	315·9
	25	216·90	0·97	5·89	6·69	8·90	318·8
	26	229·14	−0·95	+5·11	+6·43	8·20	321·7
	27	241·38	0·93	4·14	5·88	7·19	325·0
	28	253·62	0·91	3·02	5·07	5·90	329·3
	29	265·87	0·89	1·77	4·05	4·42	336·4
	30	278·12	0·87	+0·42	2·86	2·89	351·6
	31	290·36	0·85	−0·98	1·54	1·83	32·5
June	1	302·61	0·83	2·41	+0·16	2·42	86·1
	2	314·85	−0·81	−3·80	−1·23	4·00	107·9
	3	327·09	0·79	5·10	2·58	5·71	116·9
	4	339·32	0·77	6·22	3·84	7·31	121·8
	5	351·55	0·75	7·11	4·94	8·65	124·9
	6	3·77	0·73	7·69	5·84	9·64	127·4
	7	15·99	0·71	7·86	6·46	10·16	129·6

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Greenwich Noon.	Selenographical Colong. of the Sun.	Selenographical Lat. of the Sun.	Geocentric Libration. Long. of the Earth.	Geocentric Libration. Lat. of the Earth.	Geocentric Libration. Amount.	Geocentric Libration. Direction.
June 8	28°·20	0°·68	7°·60	6°·77	10°·17	131°·9
9	40·41	−0·66	−6·88	−6·69	9·59	134·8
10	52·61	0·63	5·71	6·20	8·42	137·5
11	64·80	0·60	4·15	5·30	6·72	142·0
12	76·99	0·57	2·30	4·02	4·63	150·3
13	89·18	0·54	−0·30	2·44	2·45	173·1
14	101·37	0·52	+1·69	−0·67	1·82	248·5
15	113·56	0·49	3·53	+1·11	3·70	287·4
16	125·75	−0·46	+5·09	+2·79	5·80	298·8
17	137·95	0·43	6·29	4·25	7·58	304·2
18	150·16	0·40	7·08	5·41	8·90	307·5
19	162·37	0·37	7·46	6·23	9·71	310·1
20	174·59	0·34	7·45	6·70	10·00	312·2
21	186·82	0·32	7·08	6·81	9·81	314·1
22	199·05	0·29	6·40	6·60	9·19	316·1
23	211·28	−0·27	+5·48	+6·10	8·19	318·2
24	223·52	0·24	4·35	5·32	6·87	320·8
25	235·77	0·21	3·08	4·33	5·31	324·6
26	248·02	0·19	1·72	3·15	3·59	331·3
27	260·27	0·17	+0·31	1·84	1·87	350·3
28	272·52	0·15	−1·10	+0·46	1·19	67·4
29	284·77	0·12	2·48	−0·95	2·65	111·1
30	297·02	−0·10	−3·77	−2·33	4·43	121·8

With the ephemeris for physical observations of the Moon for the second half of the year I intend to give a list of published lunar sketches, arranged in the order in which the Sun reaches the same altitudes above the horizon of the spots represented as at the times assigned to the sketches. These times ought to be those when the outlines of the shadows are drawn, if the evidence afforded by the sketches is not to be weakened. In the list only such sketches can be inserted as are at least approximately timed, and a number of merely dated sketches will have to be left out if such approximate times, and also the meridian to which they refer, are not made known to me.

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Ephemeris of the Satellites of Uranus, 1889. By A. Marth.

Greenwich Noon. 1889.	P	*Ariel.*			*Umbriel.*		
		a_1	b_1	$u_1 - U$	a_2	b_2	$u_2 - U$
	°	"	"	°	"	"	°
Feb. 26	282·643	14·97	+8·59	168·62	20·85	+11·97	197·03
Mar. 8	·718	15·06	8·58	157·00	20·97	11·95	345·71
18	·803	15·13	8·54	145·34	21·07	11·90	134·37
28	·896	15·17	8·48	133·66	21·14	11·81	283·00
Apr. 7	282·992	15·19	8·40	121·96	21·17	11·70	71·62
17	283·085	15·19	8·30	110·23	21·16	11·56	220·22
27	·173	15·16	8·19	98·48	21·12	11·41	8·82
May 7	·252	15·10	+8·08	86·71	21·04	+11·25	157·41
17	·319	15·02	7·96	74·93	20·93	11·09	305·99
27	·372	14·93	7·85	63·15	20·79	10·94	94·58
June 6	·409	14·82	7·75	51·36	20·64	10·80	243·17
16	·430	14·69	7·66	39·58	20·47	10·67	31·77
26	·433	14·56	7·58	27·81	20·29	10·57	180·38
July 6	·418	14·43	7·53	16·04	20·10	10·49	329·00
16	283·386	14·30	+7·49	4·29	19·92	+10·43	117·64

Greenwich Noon. 1889.	*Titania.*			*Oberon.*				
	a_3	b_3	$u_3 - U$	a_4	b_4	$u_4 - U$	U	B
	"	"	°	"	"	°	°	°
Feb. 26	34·20	+19·63	164·71	45·73	+26·25	321·69	0·790	+35·02
Mar. 8	34·40	19·60	218·19	46·01	26·21	229·03	0·853	34·72
18	34·57	19·51	271·65	46·22	26·09	136·37	0·925	34·37
28	34·67	19·37	325·09	46·37	25·91	43·69	1·004	33·97
Apr. 7	34·72	19·19	18·53	46·43	25·66	311·01	1·085	33·55
17	34·71	18·97	71·96	46·41	25·37	218·32	1·165	33·13
27	34·63	18·72	125·39	46·32	25·04	125·63	1·240	32·72
May 7	34·51	+18·46	178·82	46·15	+24·69	32·95	1·307	+32·34
17	34·33	18·20	232·25	45·91	24·34	300·27	1·363	32·01
27	34·11	17·94	285·70	45·61	24·00	207·60	1·407	31·74
June 6	33·85	17·71	339·15	45·27	23·68	114·95	1·437	31·54
16	33·57	17·50	32·61	44·90	23·41	22·31	1·452	31·42
26	33·28	17·33	86·08	44·50	23·18	289·68	1·451	31·38
July 6	32·98	17·20	139·57	44·10	23·00	197·06	1·433	31·43
16	32·68	+17·11	193·08	43·70	+22·88	104·46	1·399	+31·57

P, angle of position of the minor axes of the apparent orbits.
a, b, major and minor semi-axes of the apparent orbits.